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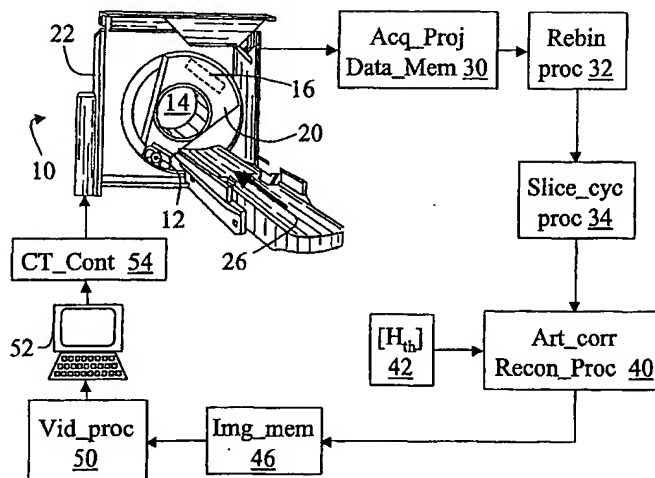
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(54) Title: **METAL ARTIFACT CORRECTION IN COMPUTED TOMOGRAPHY**



(57) Abstract: An artifact correcting image reconstruction apparatus includes a reconstruction processor (70) that reconstructs acquired projection data (60) into an uncorrected reconstructed image (74). A classifying processor (78) classifies pixels of the uncorrected reconstructed image (74) at least into high, medium, and low density pixel classes. A pixel replacement processor (88) replaces pixels of the uncorrected reconstructed image (74) that are of the high density and low density classes with pixel values of the low density pixel class to generate a synthetic image (90). A forward projecting processor (94) forward projects the synthetic image (90) to generate synthetic projection data (96). A projection replacement processor (100, 110) replaces acquired projection data (60) contributing to the pixels of the high density class with corresponding synthetic projection data (96) to generate corrected projection data (112). The reconstruction processor (70) reconstructs the corrected projection data (112) into a corrected reconstructed image (120).

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